

Listing of Claims

This listing of claims replaces all prior versions and listings of claims in the patent application.

1. (Original) A pressure sensor comprising a silicon structure having a conductive diaphragm, the silicon structure being bonded on a substrate, which comprises an electrode covered by a dielectric film, so that the diaphragm and the electrode are facing each other and there is a gap between the diaphragm and the dielectric film, the pressure sensor measuring a pressure applied thereto by detecting capacitance according to the area of a contact face of the diaphragm which touches the dielectric film when the pressure is applied;

the concentration of an impurity at the top face of the diaphragm being equal to or greater than $1 \times 10^{19} \text{ cm}^{-3}$ and less than $9 \times 10^{19} \text{ cm}^{-3}$.

2. (Withdrawn)

3. (Withdrawn)

4. (Original) A pressure sensor comprising a silicon structure having a conductive diaphragm, provided by doping of an impurity and anisotropic etching, the silicon structure being bonded on a substrate, which comprises an electrode covered by a dielectric film, so that the diaphragm and the electrode are facing each other and there is a gap between the diaphragm and the dielectric film, the pressure sensor measuring a pressure applied thereto by detecting capacitance according to the area of a contact face of the diaphragm which touches the dielectric film when the pressure is applied;

the etch pit density on the top face of the diaphragm being equal to or less than five per μm^2 .

5. (Withdrawn)

6. (Withdrawn)

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7. (Withdrawn)
